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Chemplex Co., Clinton/Camanche, IA.
U.S. Nameplate Co., Mount Vernot, IA.
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United States Environmental Protection Agency Environmental Monitoring Systems Laboratory P.O. Box 15027 Las Vegas, NV 89114

TS-AMD-82111g May 1984



Research and Development

AERIAL PHOTOGRAPHIC ATLAS PRIORITY CERCLA HAZARDOUS WASTE SITES

EPA Region 7



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FOREWORD

This atlas provides aerial photographic documentation of EPA Region VII priority hazardous waste sites eligible for remedial response actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This volume covers those sites designated eligible on the National Priorities List (NPL) as of August 1983 and those proposed to be added to the NPL on September 1, 1983. The atlas will be updated as additional sites become eligible for inclusion on the NPL.

The atlas consists of a series of color aerial photographs with photo overlays showing the site boundaries. A brief site description and a map showing the site location are also provided. It is intended that the atlas serve as a reference document and planning guide for hazardous waste site cleanup under CERCLA.

The Environmental Monitoring Systems Laboratory, Las Vegas, maintains an index to available aerial photographic data for these priority sites.



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NEBRASKA (NE) Phillips C	hemical Co., Beatrice, NE									٠,	•,	•.	;

DESCRIPTION PHILLIPS CHEMICAL COMPANY BEATRICE, NEBRASKA

Map Reference: USGS Topographic Ouadrangle: Beatrice West, Nebraska;

Scale: 1:24,000

Geographic Coordinates: 40°18'53"N 096°50'13"W

Legal Location: County Gage Township 4N Range 5E Section 14

EPA ID No.: NED 000325167

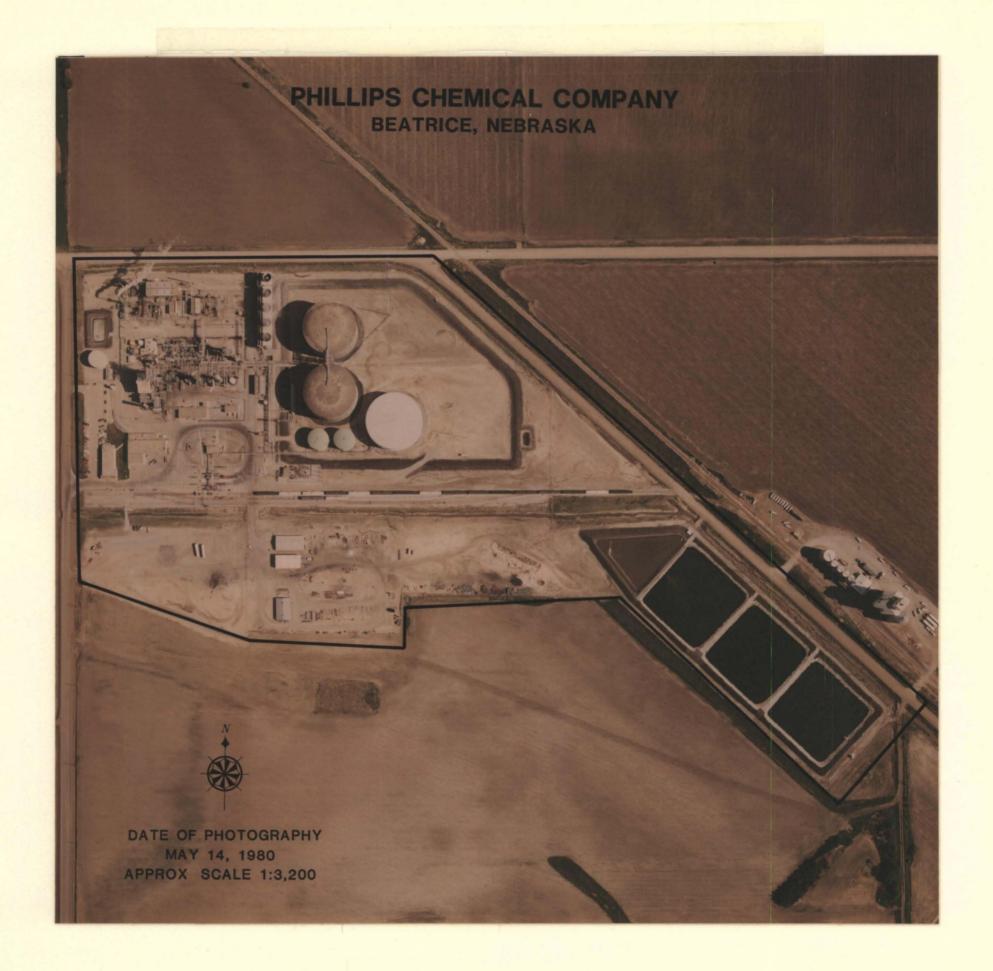
Conditions at listing (December 1982): Phillips Chemical Company cwas and operates the Hoag Nitrogen Plant, which manufactures fertilizers, on a 14 consiste.

4.5 miles northwest of Beatrice, Gage County, Nebraska. The surrounding Lord in primarily rural and agricultural. Until 1979, the company buried hazardors was trained including 1,1,1-trichloroethane, solvents, and metal-containing sludges, in piece. The site is in the floodplain of the Big Blue River. Groundwater in the vicinity is used for irrigation and as a source of drinking water, both private and municipal.

Phillips continues to treat wastes in an onsite surface impoundment, which EPA and the State regulate under the hazardous waste regulations issued under the Resource Conservation and Recovery Act.

Status (July 1983): EPA and Phillips Petroleum Company (the parent company) are negotiating a Consent Order under Section 3013 of the Resource Conservation and Recovery Act for environmental monitoring and study of the buried wastes.





DESCRIPTION DES MOINES TCE (DICO) DES MOINES, IOWA

Map Reference: USGS Topographic Quadrangle: Des Moines Southwest, Iowa;

Scale: 1:24,000

Geographic Coordinates: 41°34'42"N 093°38'06"W

Legal Location: County Polk Township 78N Range 24W Section 8

EPA ID No.: IAD 005279278

Conditions at listing (December 1982): The Des Moines TCE Site consists of a plume of groundwater contaminated with trichloroethylene (TCE) southwest of downtown Des Moines, Iowa, along the Raccoon River. EPA installed several monitoring wells to locate the source or sources of the chemical, centering its initial investigation around the Dico Company. TCE was first detected in groundwater beneath the Dico property in 1978. Dico used TCE to degrease metal parts and in the past spread the oily wastes from this process on its property to control dust. Early in 1979, the company voluntarily stopped this procedure.

This site was first listed under the name "Dico."

Status (July 1983): Recently, EPA reconfirmed TCE at Dico but is investigating other potential sources as well. Also, EPA is preparing a Remedial Action Master Plan outlining the investigations needed to determine the full extent of cleanup required at the site. It will guide further actions at the site.





DESCRIPTION JOHNS' SLUDGE POND WICHITA, KANSAS

Map Reference: USGS Topographic Ouadrangle: Wichita East, Kansas; Scale: 1:24,000

Geographic Coordinates: 37°44'30"N 097°18'45"W

Legal Location: County Sedgwick Township 27S Range 1E Section 3

EPA ID No.: KSD 980631980

Conditions at listing (December 1982): Johns' Sludge Pond is a surface impoundment in Wichita, Kansas. Between 1951 and 1970, Super Refined Oil, now out of business, recycled waste oil there, disposing of an estimated 7,000 cubic yards of sludge into an unlined pond. EPA found lead and organic compounds in groundwater on and very near the site. A number of private wells are in the area. In the 1970s, in order to conduct remedial actions at the site, the city took ownership of two-thirds of the property. The Johns' estate owns the remainder.

Status (July 1983): EPA and the city of Wichita are negotiating for remedial action at the site.





DESCRIPTION MINKER/STOUT/ROMAINE CREEK IMPERIAL, MISSOURI

Map Reference: USGS Topographic Quadrangle: Maxville, Missouri; Scale: 1:24,000

Geographic Coordinates: 38°26'25"N 090°28'46"W

Legal Location: County Jefferson Township 43N Range 5E Section 29

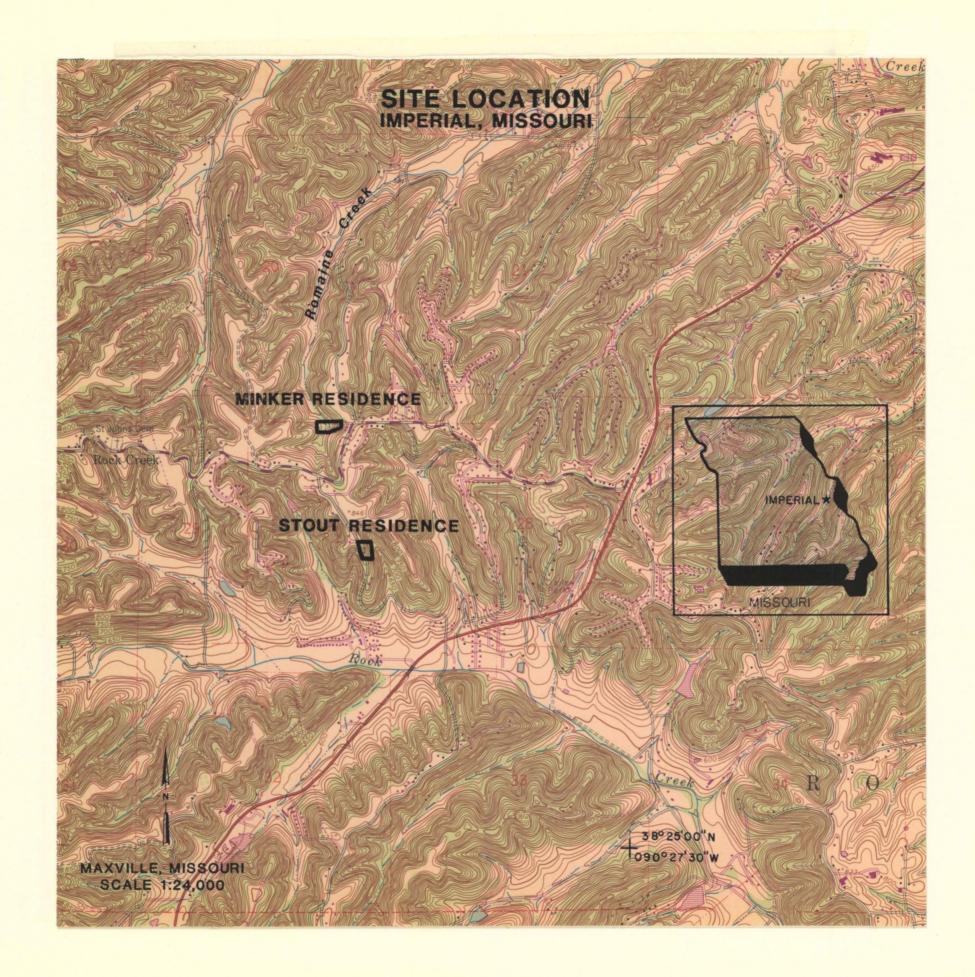
EPA ID No.: MOD 980741912

Conditions at listing (December 1982): The Minker/Stout/Romaine Creek Site covers about 10 acres near Imperial, Missouri. In 1971, the Bubbling Springs Ranch horse arena became contaminated with dioxin when a St. Louis waste oil hauler sprayed oil on it for dust control. Afterward, several horses became ill, and six or seven died. In 1972, the lessee of the arena excavated some of the dioxin-contaminated soil. Later it was used as fill material in two residential areas, one occupied by the Minker family and the other owned by the Stout family. Preliminary samples taken by EPA in May and June 1982 confirmed the presence of dioxin-contaminated soil at all three areas. In October 1982, EPA analyzed 300 samples collected in the vicinity of the two fill areas. All data were subject to vigorous quality assurance and reviewed by experts in EPA laboratories. These results confirmed the presence of dioxin in the fill areas and in sediments along 6,000 feet of Romaine Creek. The highest level of dioxin detected in the area is 301 parts per billion.

This site was originally listed under the name "Arena 2: fills 1 and 2."

Status (July 1983): In December 1982, EPA allocated about \$750,000 for (1) initial remedial measures involving erosion controls and relocation of residents near the two areas, (2) a remedial investigation to determine the extent of contamination at the site, and (3) a feasibility study to identify alternatives for remedial action. The State signed a State Superfund Contract with EPA in February 1983, outlining the scope of work to be conducted at the site. It is scheduled to be completed in the first quarter of 1984.

In April 1983, the Centers for Disease Control issued a health advisory recommending permanent relocation of 11 families on or near the site. EPA then allocated \$2.2 million to the Federal Emergency Management Agency for the relocation.









DESCRIPTION SHENANDOAH STABLES MOSCOW MILLS, MISSOURI

Map Reference: USGS Topographic Quadrangle: Troy, Missouri; Scale: 1:24,000

Geographic Coordinates: 38°55'28"N 090°55'37"W

Legal Location: County Lincoln Township 48N Range 1E Section 17

EPA ID No.: MOD 980685838

Conditions at listing (December 1982): The Shenandoah Stables Site covers about 7 acres near Moscow Mills, Lincoln County, Missouri. In May 1971, the horse arena became contaminated with dioxin when a St. Louis waste oil hauler sprayed approximately 2,000 gallons of contaminated oil for dust control. Afterward, numerous birds, rodents, and over 40 horses died. Several adults and children became ill. In August 1971, the top 6 to 8 inches of contaminated soil were excavated and used as fill material in a new highway. In April 1972, more soil was removed from the arena and placed in a swampy area onsite. EPA sampling in May and June 1982 indicated that the top 30 inches of soil in the arena contains from 1 to 127 parts per billion of dioxin.

This site was originally listed under the name "Arena 1: Shenandoah Stables."

Status (July 1983): In May 1983, EPA entered into a Consent Order under CERCLA Section 106 requiring the owner of the property to limit public access to the contaminated areas until such time as cleanup measures are taken.





DESCRIPTION TIMES BEACH TIMES BEACH, MISSOURI

Map Reference: USGS Topographic Quadrangle: Manchester, Missouri; Scale: 1:24,000

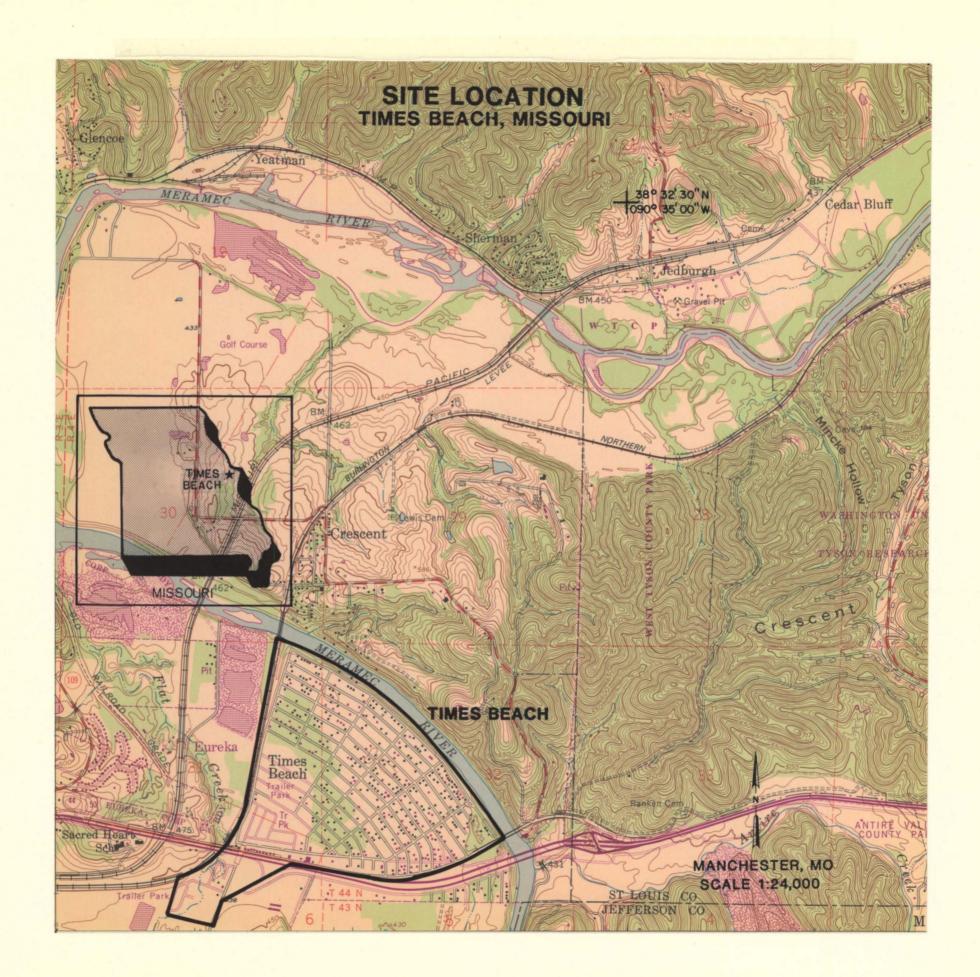
Geographic Coordinates: 38°30'30"N 090°36'06"W

Legal Location: County St. Louis Township 44N Range 4E Section 32

EPA ID No.: MOD 980685226

Conditions at listing (March 1982): The City of Times Beach (population 2,800) covers 8-square miles on the floodplain of the Meramec River in St. Louis County, Missouri. In 1972 and again in 1973, the city contracted with a waste oil hauler to spray oil on unpaved roads for dust control. It was later learned that the waste oil contained dioxin. In November and early December 1982, EPA sampled the roads and right-of-ways in Times Beach. Soon afterward, the Meramec River flooded the city. EPA expedited the sample analyses and found dioxin at levels from less than 1 part per billion (ppb) to 127 ppb. As a result, the Centers for Disease Control (CDC) issued a health advisory on December 23, 1982, recommending that people relocated from Times Beach due to flooding should stay away, and that those remaining should leave. EPA resampled the area in January 1983 to determine if floodwaters had deposited contaminated soil into homes and yards. In the second week of January, EPA allocated \$500,000 to CDC to collect health questionnaires and examine the people of Times Beach. On February 22, 1983, EPA pledged \$33 million from Superfund to purchase the Times Beach property under a relocation plan to be developed and implemented by the Federal Management Agency.

Status (July 1983): EPA is preparing a Remedial Action Master Plan outlining the investigations needed to determine the full extent of cleanup required at Times Beach. The next step is a feasibility study to identify alternatives for remedial action. CDC will continue its questionnaires and examinations and is also working with EPA to define cleanup levels for dioxin at Times Beach.





DESCRIPTION SYNTEX FACILITY VERONA, MISSOURI

Map Reference: USGS Topographic Ouadrangle: Verona, Missouri; Scale: 1:24,000

Geographic Coordinates: 36°57'55"N 093°47'55"W

Legal Location: County Lawrence Township 26N Range 26W Section 17

EPA ID No.: MOD 007452154

Conditions at listing (December 1982): North Eastern Pharmaceutical and Chemical Company produced hexachlorophene (soap) from 1969 to 1972 in Verona, Missouri, at a site leased from Hoffman-Taff Chemical Company. The facility was later acquired by Syntex Agribusiness, Incorporated. Dioxin was produced as a by-product during the manufacturing of trichlorophenol, which was used to make hexachlorophene. Dioxin residues were disposed of in several areas at the Verona facility. Fish taken from the Spring River, which runs by the site, are contaminated with dioxin as far as 96 miles downstream. In August 1982, Syntex signed a Consent Order with EPA under Section 3013 of the Resource Conservation and Recovery Act, agreeing to study the disposal sites and the Spring River.

Status (July 1983): EPA is reviewing the results of a monitoring study by Syntex and is currently in negotiations with the company to undertake remedial actions under the terms of a Consent Order under CERCLA Section 106.





DESCRIPTION OUAIL RUN MOBILE MANOR GRAY SUMMIT, MISSOURI

Map Reference: USGS Topographic Ouadrangle: Labadie, Missouri; Scale: 1:24,000

Geographic Coordinates: 38°30'10"N 090°47'40"W

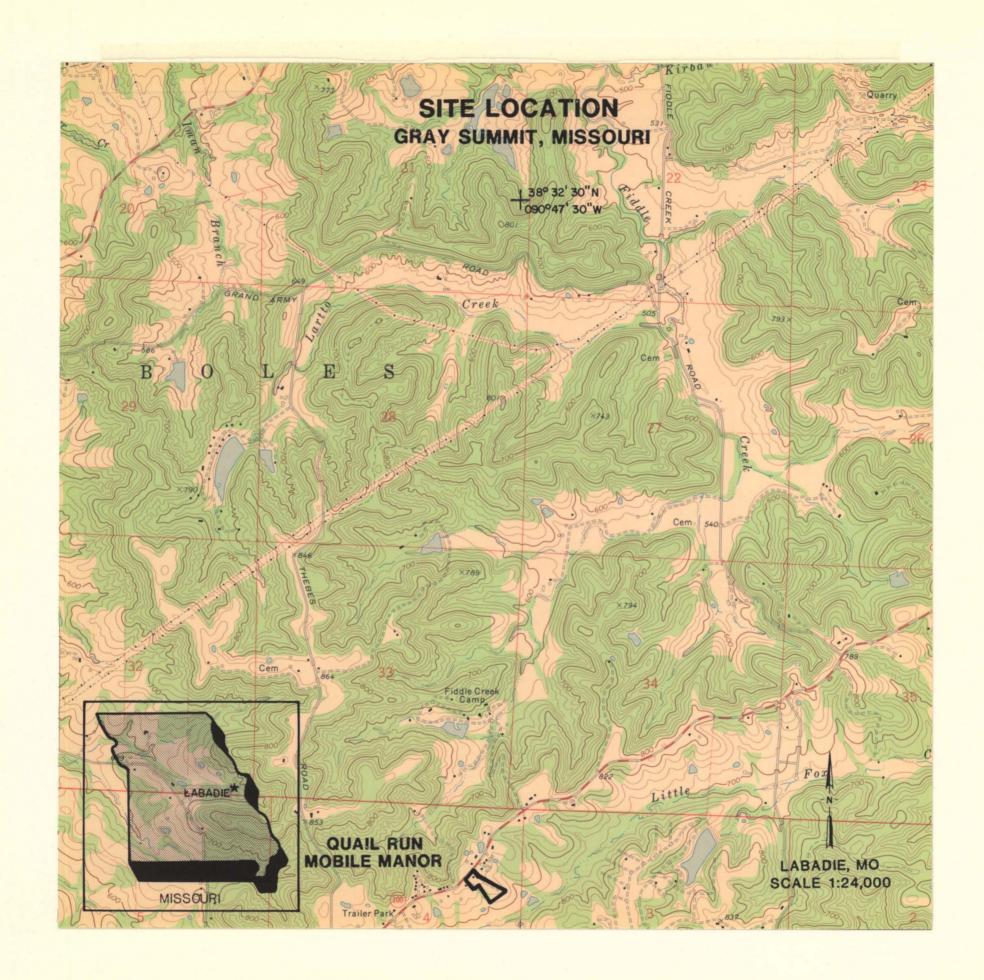
Legal Location: County Franklin Township 43N Range 2E Section 4

EPA ID No.: MOD 980688634

Ouail Run Mobile Manor is 2 miles East of Gray Summit, Missouri. The privately owned site was occupied by more than 100 residents in 32 trailers and 1 house. One family was relocated from Times Beach, and six had voluntarily moved from Times Beach into new trailers. In 1970, the road through the trailer park was sprayed with 25 barrels of dioxin-contaminated waste oil. In 1974, soil was excavated to a depth of 2 feet from one road in the park. This was deposited in the area between the road and a lagoon.

On February 2, 1983, EPA identified dioxin at the site. Analysis of soil samples from nine locations detected 1.4 parts per billion (ppb), 14 ppb, and 23 ppb of dioxin. Additional sampling on March 9, 1983, revealed a range of levels from 6 ppb to 1,100 ppb. Based on March 9 analysis, a health advisory issued by the Centers for Disease Control (CDC) concluded that all of the families were at risk of developing adverse health effects from dioxin if they remained in residence. The owners were brought into the EPA Regional Office in Kansas City, Missouri, on May 13 and briefed on the test results by representatives of the Missouri Department of Natural Resources (MDNR), CDC, Federal Emergency Management Agency (FEMA), and EPA. Analyses of samples taken on May 14 are not yet completed.

A meeting was held May 14 in Pacific, Missouri, to brief the residents on findings and to explain the offer of temporary relocation. EPA, with the assistance of CDC and FEMA, established a command post onsite to answer questions from the media and residents and to assist in filling out FEMA temporary housing applications. Applications were filed by 29 families.





DESCRIPTION LABOUNTY CHARLES CITY, IOWA

Map Reference: U.S. Topographic Quadrangle: Charles City, Iowa; Scale: 1:24,000

Geographic Coordinates: 43°03'27"N 092°40'02"W

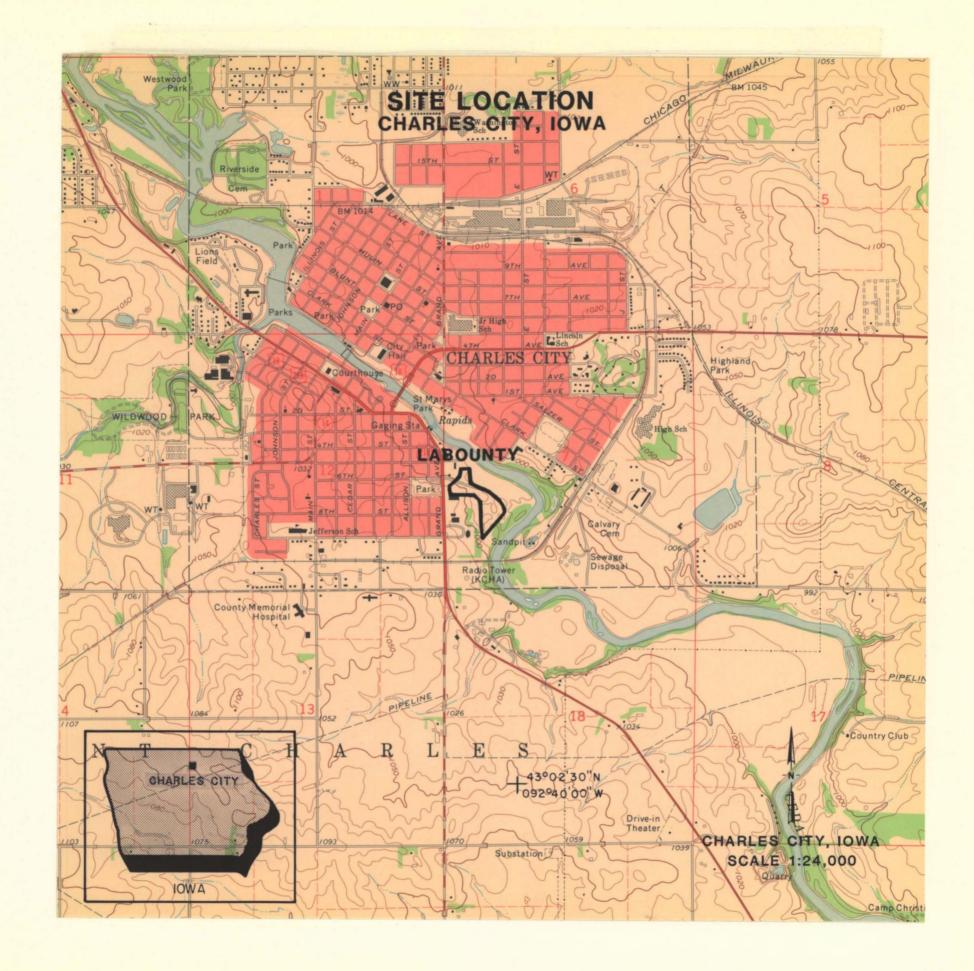
Legal Location: County Floyd Township 95N Range 15W Section 7

EPA ID No.: IAD 980631063

Conditions at listing (December 1982): The LaBounty Site occupies 8.5 acres on the Cedar River floodplain at the southern edge of Charles City, Iowa. From 1953 to 1977, Salsbury Laboratories, a manufacturer of veterinary pharmaceuticals, disposed of 6.4 million cubic feet of arsenical sludge and organic wastes on the site. Leachate from the site is contaminated with 36 chemicals, some containing metals. Leachate-contaminated groundwater discharges from a shallow aquifer into the Cedar River, but the deeper aquifer is not presently contaminated. The river and the deeper aquifer combined supply drinking water to more than 300,000 people, about one-third of Iowa's population.

In 1977, Iowa issued an administrative order that required the company to prevent runoff, cease operations, and submit a plan for removal of wastes. EPA also issued an administrative order requiring the company to take interim remedial measures. In response, the company installed a groundwater monitoring system, capped the site, and took measures to reroute and divert runoff.

Status (July 1983): The State and EPA are evaluating monthly groundwater and surface water monitoring data to assess the effectiveness of the company's interim remedial measures and determine if additional remedial action is necessary.





DESCRIPTION DOEPKE DISPOSAL (HOLLIDAY) JOHNSON COUNTY, KANSAS

Map Reference: USGS Topographic Quadrangle: Edwardsville, Kansas; Scale: 1:24,000

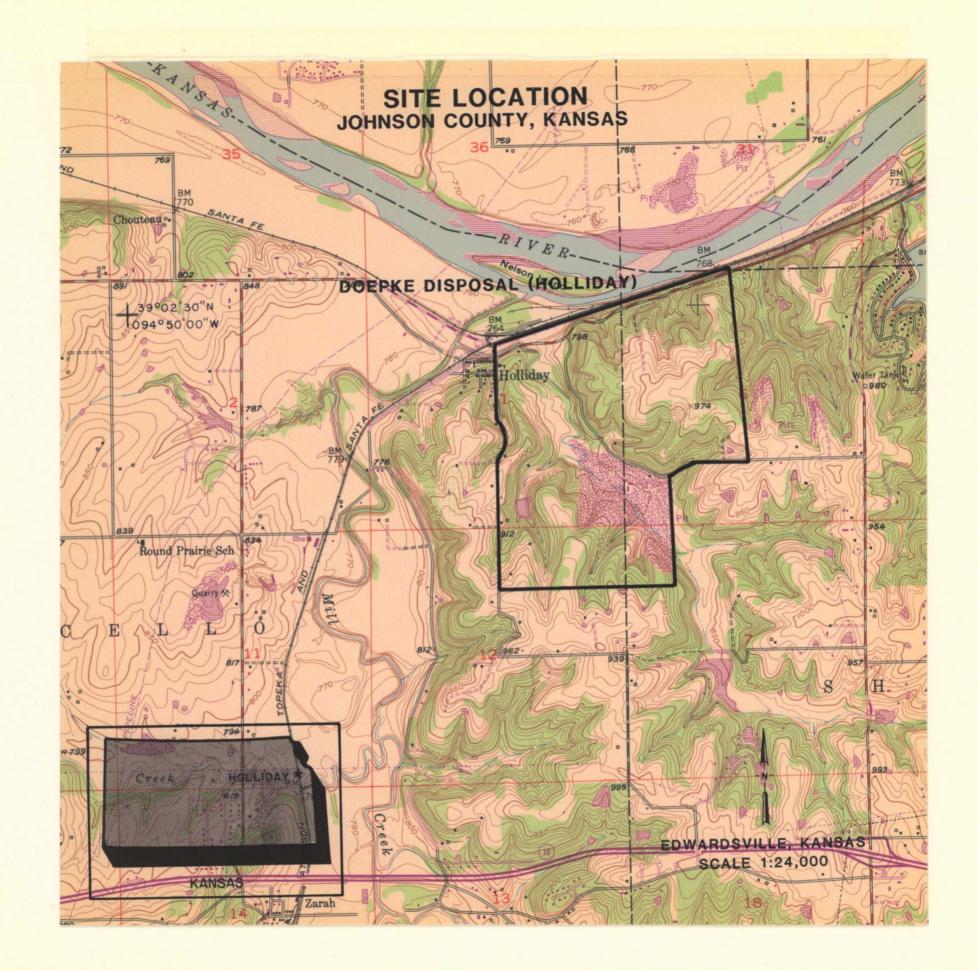
Geographic Coordinates: 39°02'11"N 094°48'10"W

Legal Location: County Johnson Township 12S Range 23E Section 1

EPA ID No.: KSD 980632301

Conditions at listing (December 1982): Doepke Disposal (Holliday) operated a 10-acre site on the southern bluffs of the Kansas River Valley in Johnson County, Kansas, during the 1960s. The site, at the intersection of Holliday Drive and Interstate 435, received unknown quantities of industrial wastes such as paint sludges, spent solvents, metal tailings, and fiberglass resins. Leachate containing toxic organic and inorganic chemicals flows through a culvert under Holliday Drive into the Kansas River. County residents receive drinking water primarily from 21 wells less than 1 mile downstream from the site. Additional supplies are drawn from the Kansas River.

Status (July 1983): Recent analyses detected iron, manganese, boron, other metals, and bis-2-ethylhexylphthalate in leachate and shallow groundwater. Contaminants in the leachate have not been detected at the river intake or in the well field. EPA is now evaluating these recent data. In addition, EPA is preparing a Remedial Action Master Plan outlining the investigations needed to determine the full extent of cleanup required at the site.





DESCRIPTION AIDEX CORPORATION SITE COUNCIL BLUFFS, IOWA

Map Reference: USGS Topographic Ouadrangle: Council Bluffs South, Iowa;

Scale: 1:24,000

Geographic Coordinates: 41°08'36"N 095°48'48"W

Legal Location: County Pottawattamie Township 73N Range 43W Section 8

EPA ID No.: IAD 042581256

A plant near Council Bluffs, Iowa, belonging to Aidex Corporation, a bankrupt pesticide formulating company, caught fire in 1976. The 100,000 gallons of water used to fight the fire contaminated the ground.

More than 4,000 barrels of pesticides and pesticide wastes are stored and buried on the property. A large underground tank and concrete pit also contain wastes. The U.S. Environmental Protection Agency (EPA) investigators found pesticide contamination in soil at the facility. In December 1981, EPA erected a security fence around the property with Superfund monies. In April 1982, EPA allocated additional Superfund monies to conduct a feasibility study that will define the scope of the problems and recommend the most cost-effective plan for remedial action. Initial remedial actions are also underway to secure drums, empty the tank and pit, and control erosion from highly contaminated soil areas.

A federal civil action in U.S. District Court seeking injunctive relief has been brought by the Department of Justice on behalf of EPA against responsible parties with this site.





DESCRIPTION ARKANSAS CITY DUMP COWLEY COUNTY, KANSAS

Map Reference: USGS Topographic Quadrangle: Arkansas City, Kansas; Scale: 1:24,000

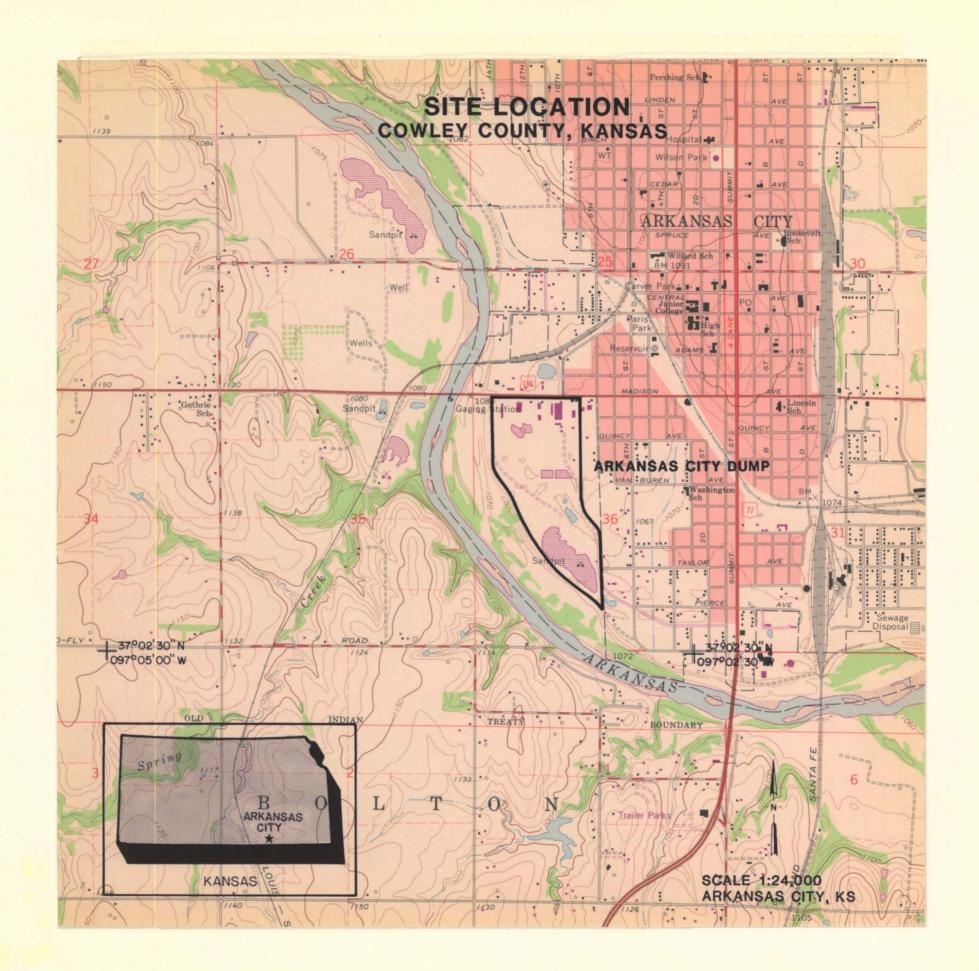
Geographic Coordinates: 37°03'06"N 097°03'06"W

Legal Location: County Cowley Township 34S Range 3E Section 36

EPA ID No.: KSD 980500789

The Arkansas City Dump, Cowley County, Kansas, was the location of the Milliken Refining Company until an explosion destroyed the facility in the mid-1920s. The wastes of the refinery operations remain on about 4 acres. The land has been divided into small tracts and sold to several small businesses. Most of the site is owned by a local industrial development corporation and by Arkansas City.

The U.S. Environmental Protection Agency funded a full investigation of the site by the Kansas Department of Health and Environment. Preliminary results indicate trace amounts of polynuclear aromatics in groundwater near the waste disposal areas.





DESCRIPTION ELLISVILLE SITE ELLISVILLE, MISSOURI

Map Reference: U.S. Topographic Ouadrangle: Manchester, Missouri; Scale: 1:24,000 Geographic Coordinates: 38°36'12"N 090°37'06"W

Legal Location: County St. Louis Township 45N Range 4E Sections 31 & 32

EPA ID No.: MOD 980633010

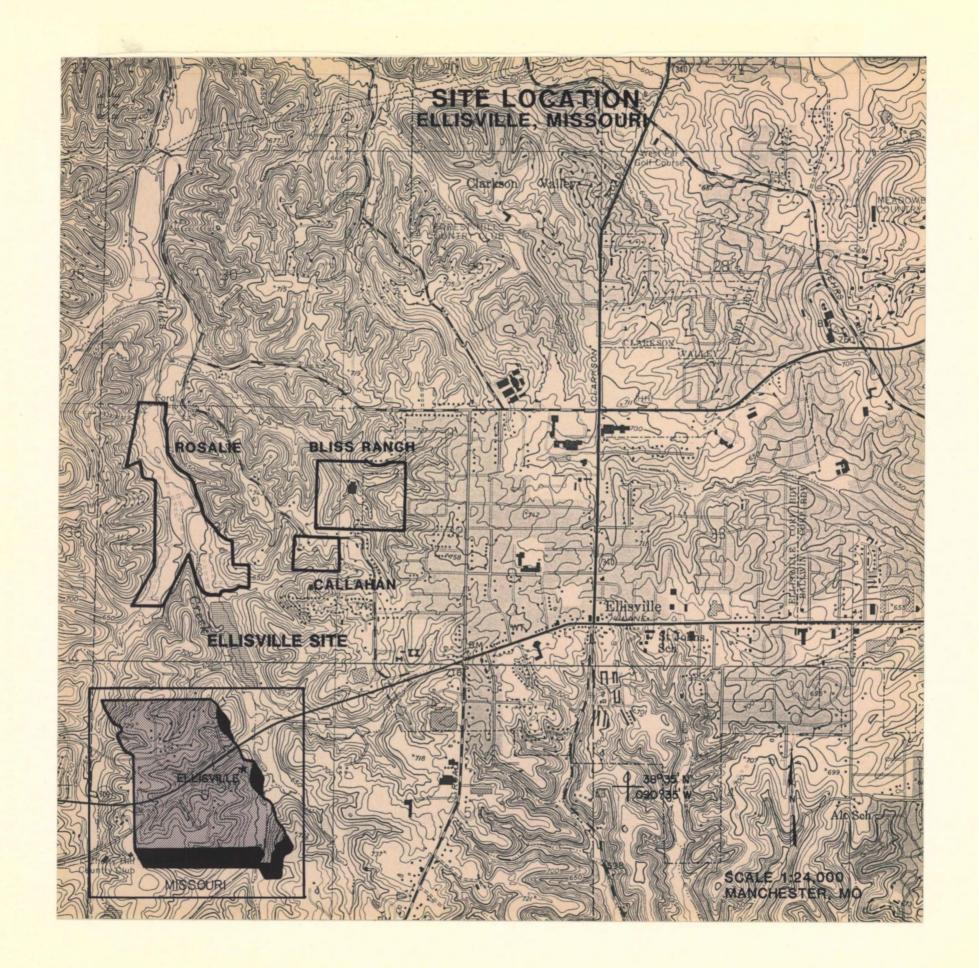
Three sites, Callahan, Rosalie, and Bliss, near Ellsiville, Missouri, are known collectively as the Ellisville Site.

In 1980, a contractor unearthed some buried drums of paint solvents and pesticides while constructing a sewer line. Further investigation revealed two other areas where industrial wastes had been buried within a 1-mile area along Caulks Creek in west St. Louis County.

All known drums have been removed from the Rosalie and Callahan sites, although potentially contaminated soil remains. Geological reports indicate the contaminant could enter the groundwater.

To date, over \$1 million has been allocated for a feasibility study of all three sites, and drum removal and disposal at the Callahan site.

Both the U.S. Environmental Protection Agency and the Missouri Department of Natural Resources are negotiating with responsible generators. Development of a feasibility study is underway to determine the best approach for the remaining problems at the sites.













DESCRIPTION FULBRIGHT LANDFILL SPRINGFIELD, MISSOURI

Map Reference: USGS Topographic Quadrangle: Ebenezer, Missouri; Scale: 1:24,000

Geographic Coordinates: 37°16'36"N 093°18'36"W

Legal Location: County Greene Township 30N Range 22W Section 35

EPA ID No.: MOD 980631139

The Fulbright Landfill near Springfield, Missouri, is a city facility which operated from 1963 until 1969 on the floodplain of the Little Sac River. It was used for municipal and industrial wastes. The industrial material contained cyanides, acids, plating and paint sludges, solvents, and pesticides. In 1967, a hauler died when he inadvertently dumped an acid drum into a pit containing cyanide.

The State of Missouri is investigating the landfill and surrounding industrial facilities. Water samples from several natural springs show contamination from solvents, but they have not been linked to landfill releases.

The U.S. Environmental Protection Agency and the Missouri Department of Natural Resources have worked with the city of Springfield to set up a monitoring program to determine if groundwater and surface water are being contaminated. Samples from the various monitoring points are collected monthly by the City.

